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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,115	01/14/2004	Steven O. Smith	24317/82951	2949

7590 01/21/2005  
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EXAMINER

NGUYEN, HIEP

ART UNIT PAPER NUMBER

2816

DATE MAILED: 01/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

<b>Application No.</b> 10/757,115	<b>Applicant(s)</b> SMITH ET AL.	
<b>Examiner</b> Hiep Nguyen	<b>Art Unit</b> 2816	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1)  Responsive to communication(s) filed on 14 January 2004.
- 2a)  This action is **FINAL**.
- 2b)  This action is non-final.
- 3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4)  Claim(s) 1-20 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5)  Claim(s) 10-16 is/are allowed.
- 6)  Claim(s) 1 and 17 is/are rejected.
- 7)  Claim(s) 2-9 and 18-20 is/are objected to.
- 8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9)  The specification is objected to by the Examiner.
- 10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All   b)  Some \*   c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1)  Notice of References Cited (PTO-892)
- 2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5)  Notice of Informal Patent Application (PTO-152)
- 6)  Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Memida (USP. 6,137,360).

Regarding claim 1, figure 13 of Memida shows a buffer comprising:

an input terminal (IN1) operable to receive an input signal;

an output terminal (OUT) at which an output signal for the buffer circuit is provided;

a first transistor (P101) having a gate, a source, and a drain, wherein the source of the first transistor is connected to the input terminal (IN1);

a second transistor (P102) having a gate, a source, and a drain, wherein the gate of the second transistor is connected to its drain and to the gate of the first transistor;

a third transistor (P131) having a gate, a source, and a drain, wherein the gate of the third transistor is connected to the drain of the first transistor (P101), wherein the source of the third transistor is connected to the output terminal and to the source of the second transistor (P102) and means for balancing the first transistor and the second transistor (feedback transistor N112) when a change occurs in the input signal appearing at the input terminal (col. 1, lines 64-76, col.3 lines 1-31).

Regarding claim 17, figure 13 of Memida shows a buffer circuit comprising:

an input terminal (IN1) operable to receive an input signal;

an output terminal (OUT) at which an output signal for the buffer circuit is provided;

at most three transistors (P101, P102, P131) operable to provide signal currents, wherein two of the three transistors are matched (N111, N112); and

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means for feeding back (N112) the output signal so that the two matched transistors (P101, P102) are balanced in response to a change in the input signal appearing at the input terminal (col. 1, lines 64-76, col.3 lines 1-31).

***Allowable Subject Matter***

Claims 2-9 and 18-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 10-16 are allowed.

Claims 2-9 and 18-20 are objected to because the prior art (USP. 6,137,360) fails to teach or fairly suggest a buffer comprising two current sources (fourth and fifth transistors) connected to the first and second transistors as called for in claims 2 and 7; a capacitor connected to the gate of the third transistor as called for in claim 9 and first and second current sources as called for in claim 18.

Claims 10-16 are allowed because the prior art (USP. 6,137,360) fails to teach or fairly suggest a buffer comprising first to sixth transistors as called for in claim 10.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hiep Nguyen whose telephone number is (571) 272-1752. The examiner can normally be reached on Monday to Friday from 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on (571) 272-1740. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hiep Nguyen

01-13-05



TUANT.LAM  
PRIMARY EXAMINER